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History and Tasking

History

8 Feb 95	SECNAV memo raises concern about IT
Feb-Apr 95	DoN Wash Region ITTT
2 Aug 95	SECNAV memo places IT in top 10 priorities
26 Oct 95	SECNAV memo directs IT resource consolidation
28 Dec 95	ASN(RDA) ltr sets INPO resources and personnel
7 Jan 96	INPO officially stands up

Tasking

- Design DoN HQ network to serve as model
- Establish unclas Washington Metro Area connectivity (virtual node)
- Facilitate development of IT standards to enable connectivity across DoN and act as technical liaison for FWESB & ITEC
- Technical support for Reengineering Process Improvement IPTs

Task

“ . . . provide a facilitated approach to the development of a seamless architecture for the interchange of electronic-mail, integrated office automation services, and connectivity throughout the DoN. . . ”

***John H. Dalton
Secretary of the Navy***

Givens

- **Majority of Navy will not follow standardization mandated from DC**
 - **By necessity, the Navy has practiced a distributed, “team” based management style for centuries which has fostered highly independent organizational elements**
 - **Too much invested in different system to standardize**
 - **Significant gray market investment that would go uncontrolled in any case**

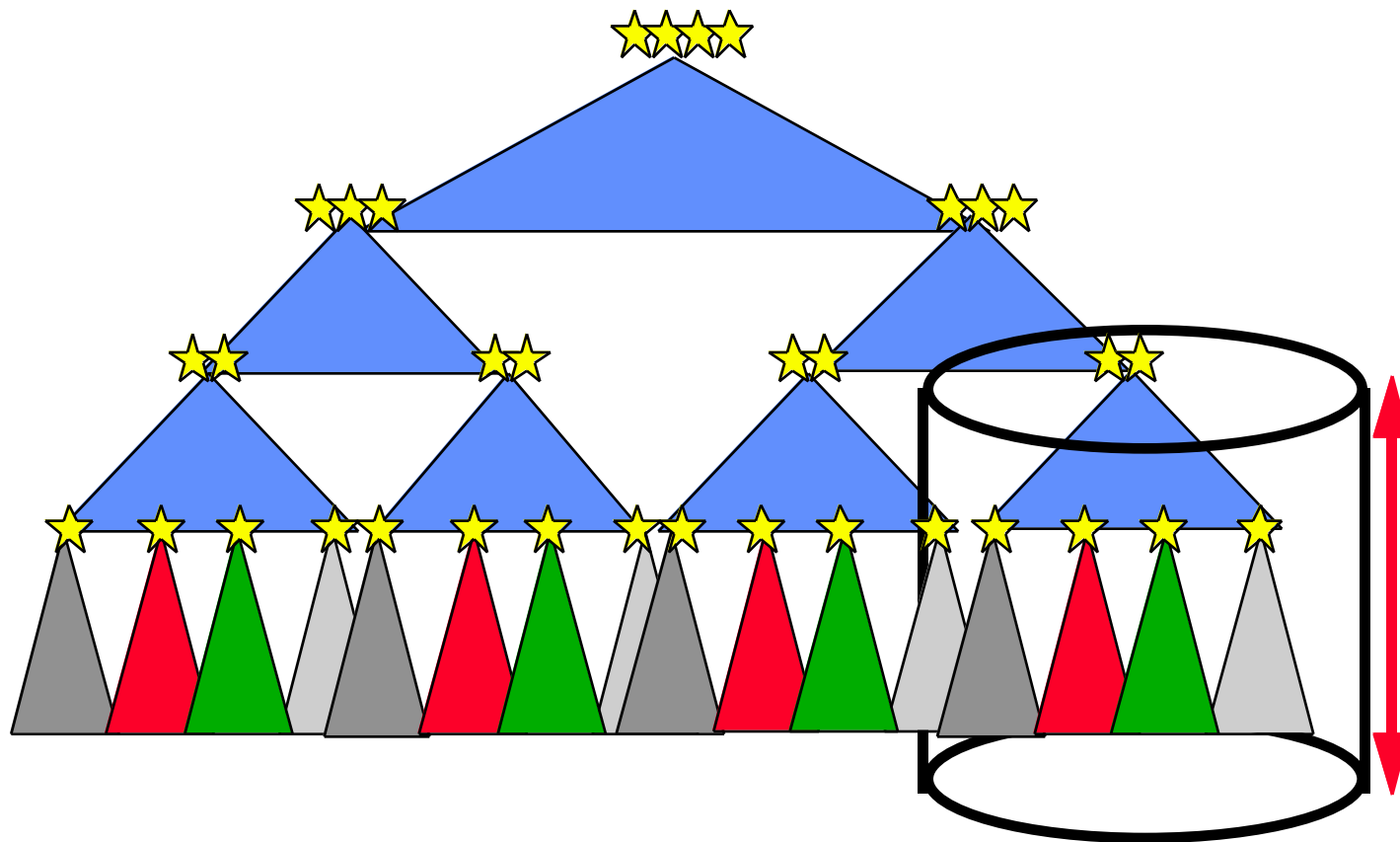
The Need...Good News

- **Explosion of Information Technology (IT) has nurtured the development of very capable systems**
- **Desktop computing resources have taken systems development out of the “glass-house” and down to the end-user**
- **“Communities of interest” are getting their specific problems solved**
- **“Standards” are finally being recognized as a best-practice**

The Need...Bad News

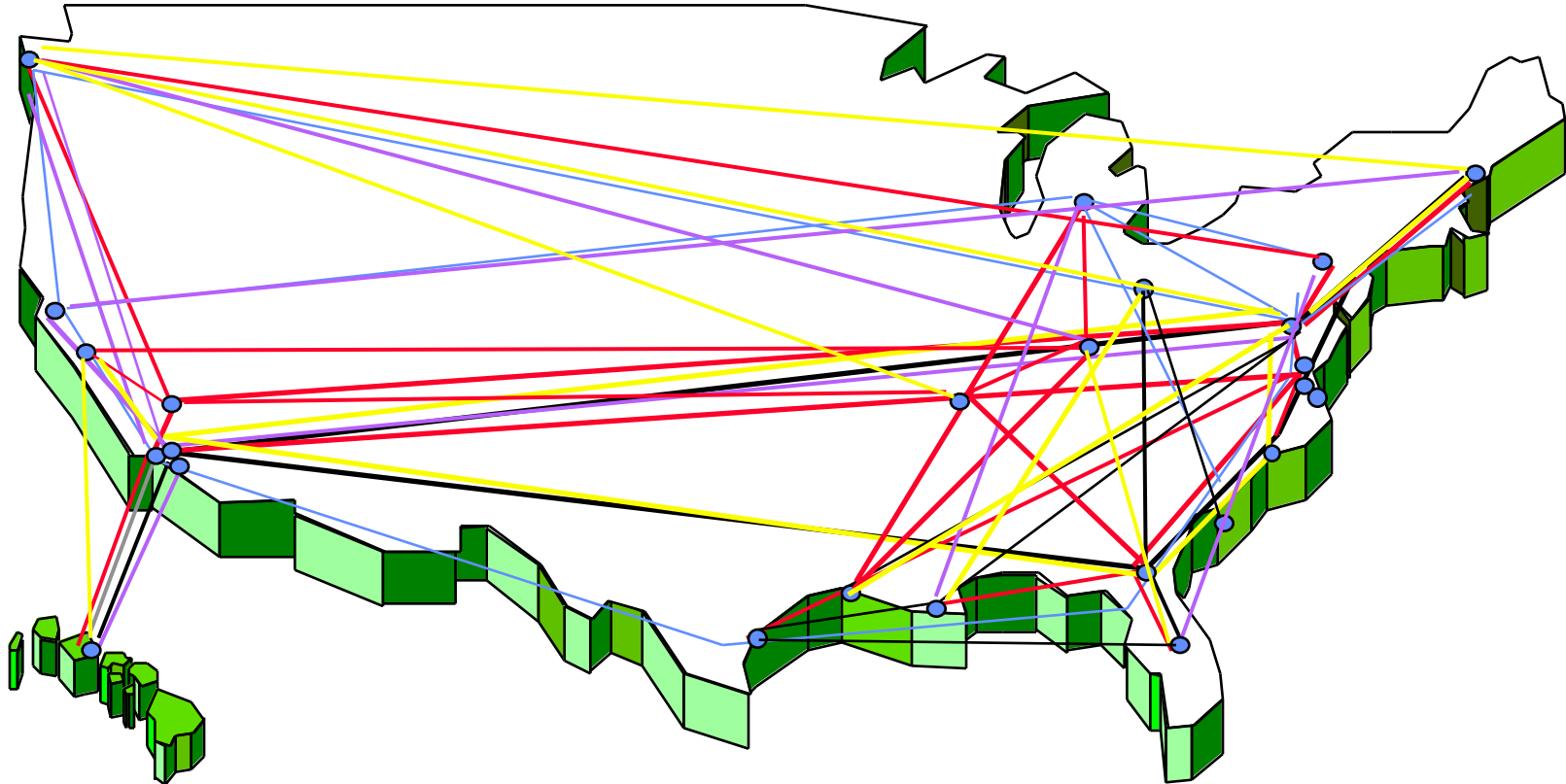
- There are hundreds of “capable systems” which don’t interoperate
- Many systems are developed in isolation (i.e.. “Stovepipes”)
- Use of “Standards” does not guarantee interoperability
- DoN IM/IT talent is widely distributed

Not an Island



Resultant Investment

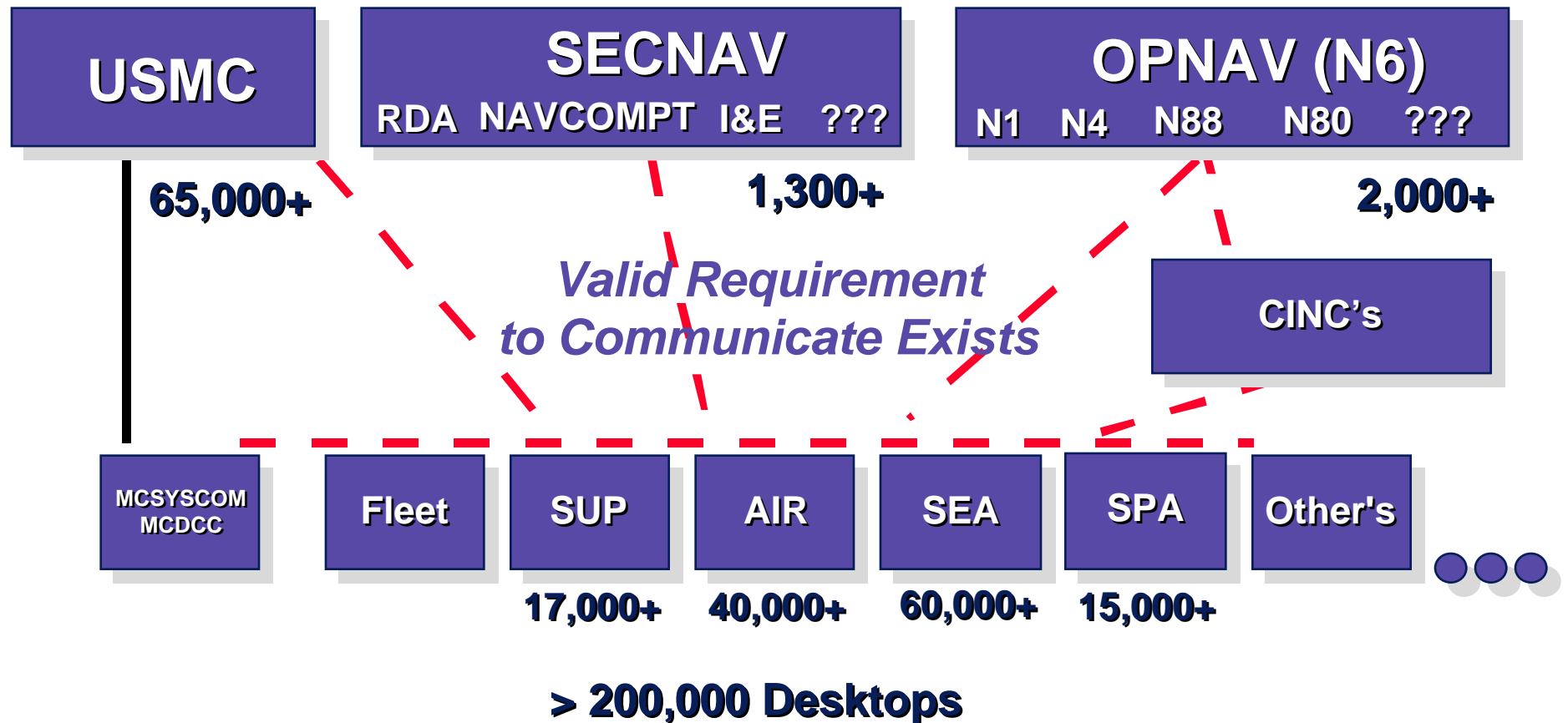
NewNet, NAVWAN, NIPR,
CrMissileNet, NAVSUP,
USMC-Net, PersNet, Others?



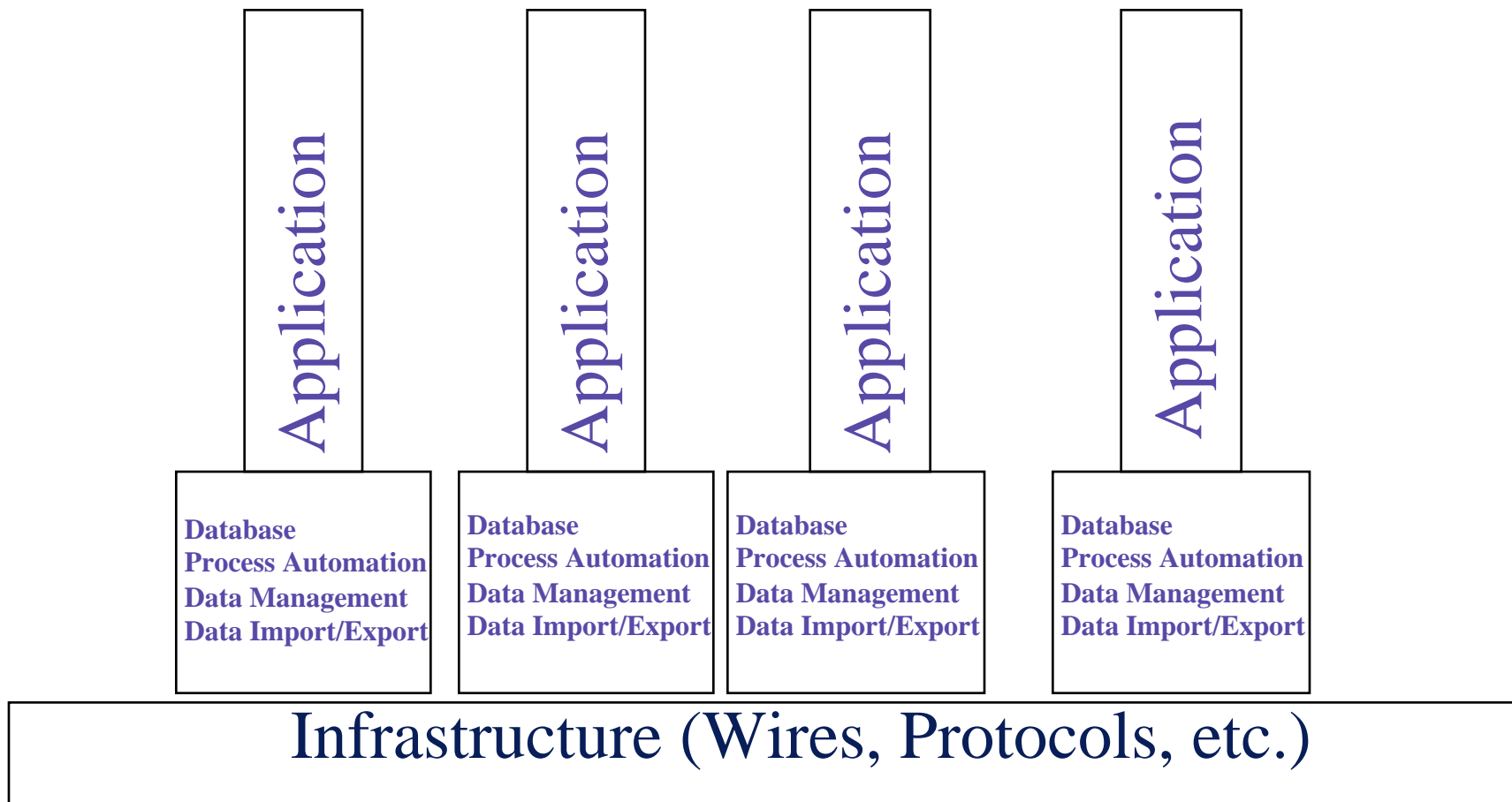
What We Found

Lack of Systems Integration Management Approach

Classified vs. Unclass Limitations



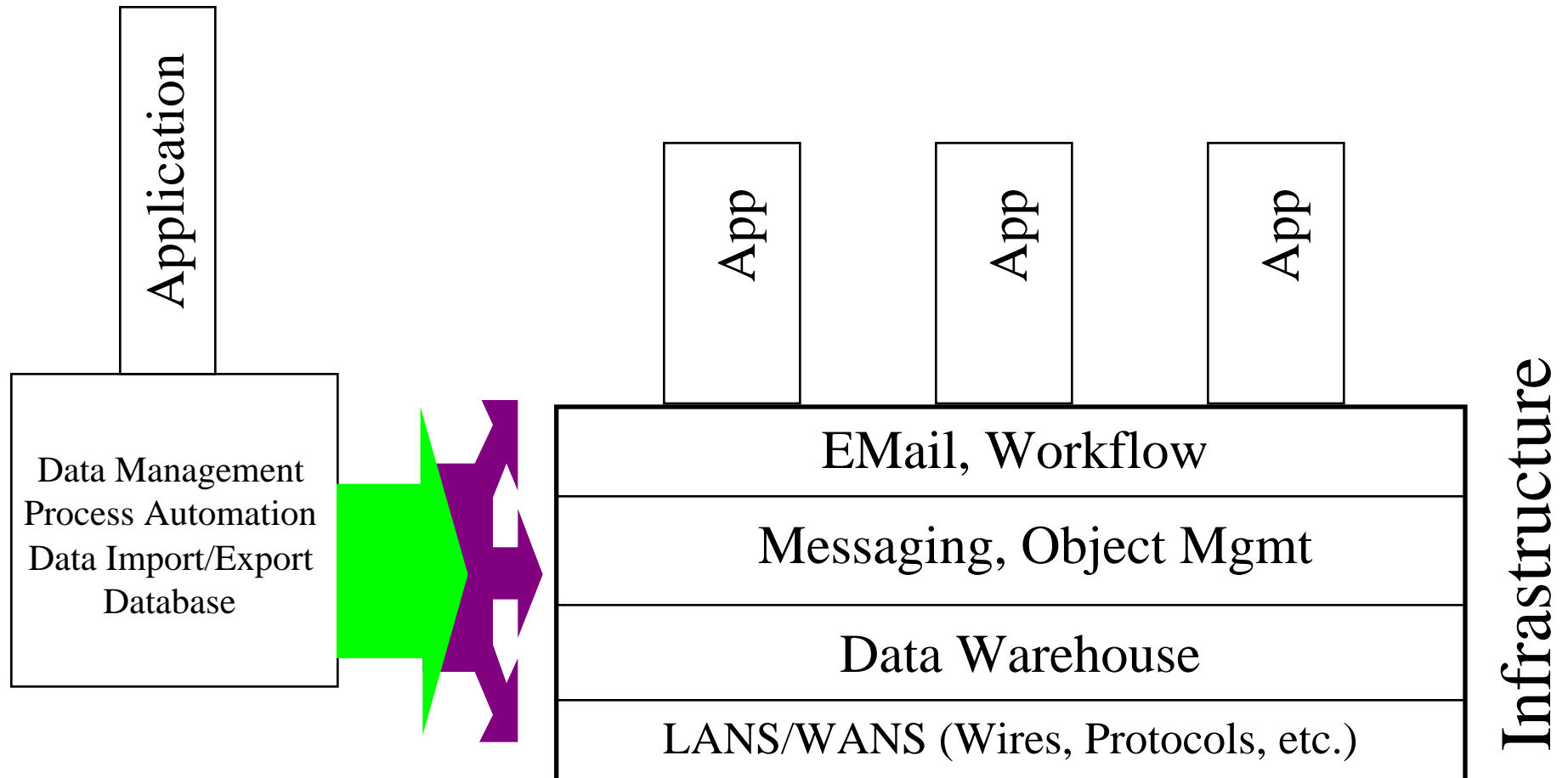
Management Systems...today



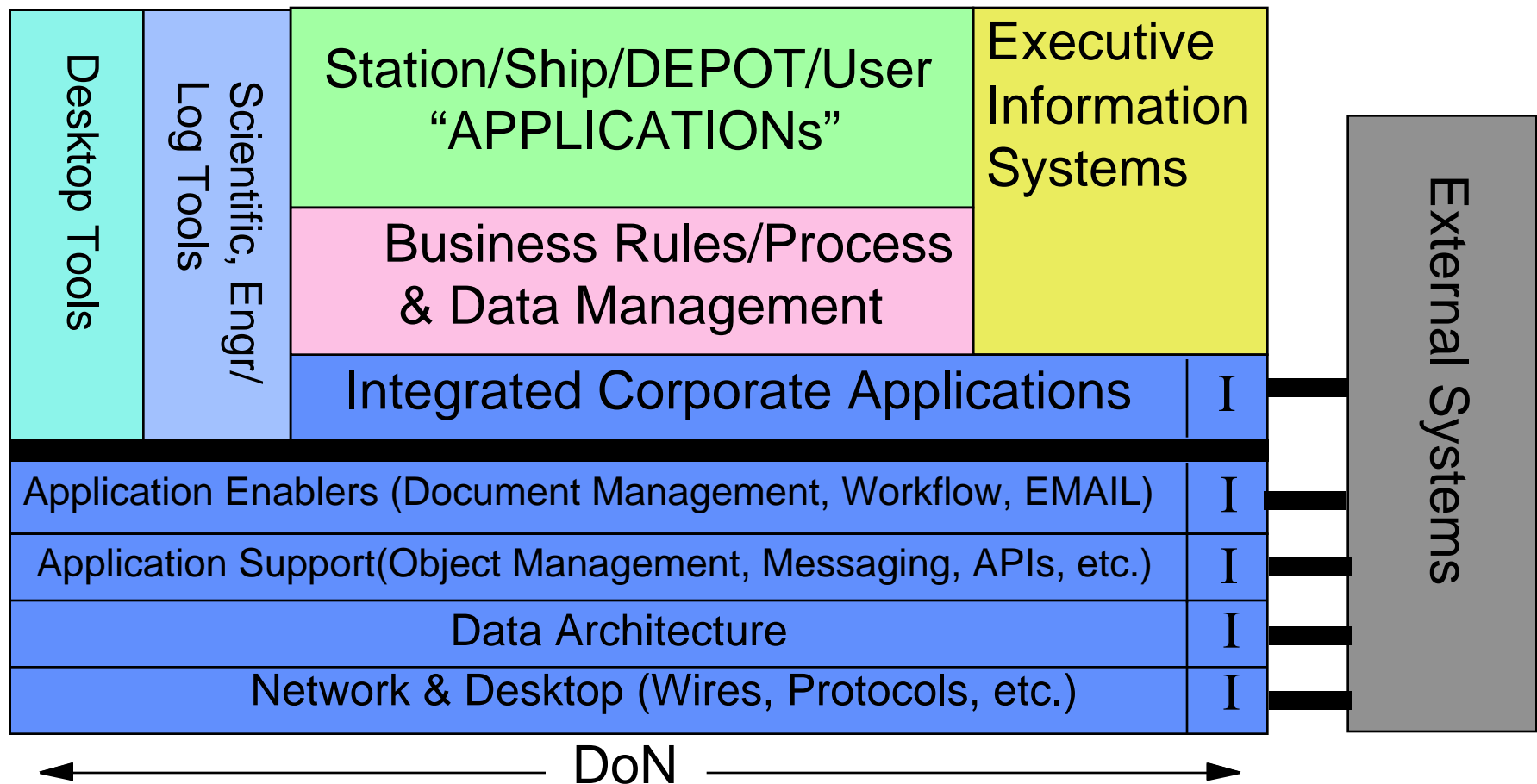
Requirements

- DoN needs a flexible responsive enterprise (ie. DoN) architecture that promotes standards, NOT standardization
- Development of standards must be achieved by consensus across DoN
- Standards must be highly interoperable, building one on top of another
- Standards must be easy to acquire

Resultant Architecture



DoN Information System Architecture



Each levels builds on the one below

DoN Information System Architecture

INPO focus is on bottom four layers of the IT Architecture model

- **DoN Network** - Will establish policies and standards for computer networking hardware and software including LANs, WANs, and Video Technology.
- **DoN Data Architecture** - Will establish policy and standards for Data Architecture including: Data Formatting, Data Storage, Data Warehousing, Data Sharing, and Data Security.
- **DoN Application Support** - Will develop policy and standards for Applications Enabler elements including: Object Management, Messaging, and other enabling elements.
- **DoN Application Enabler** - Will develop policy and standards for Applications Support elements including: Workflow, Document Management, Email, Calendaring, and other supporting elements.

DoN Information System Architecture

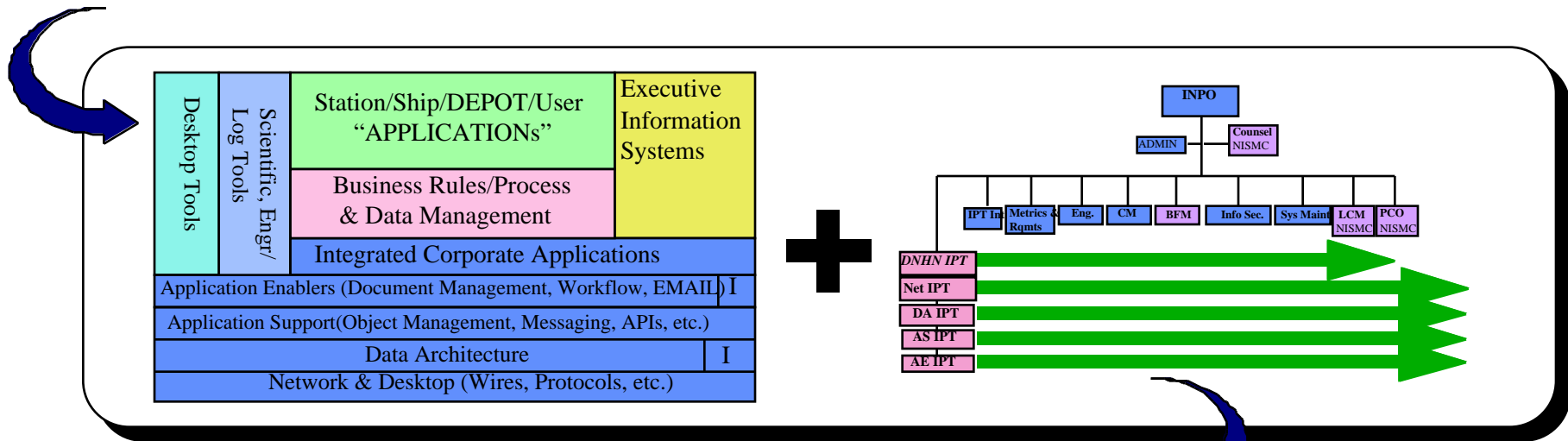
Advantages:

- Factors out common elements in all applications with resultant interoperability
- Executive Information Systems (EIS) can be created using existing desktop tools (Word Processor, Spread Sheet, etc.)

Implementation Model

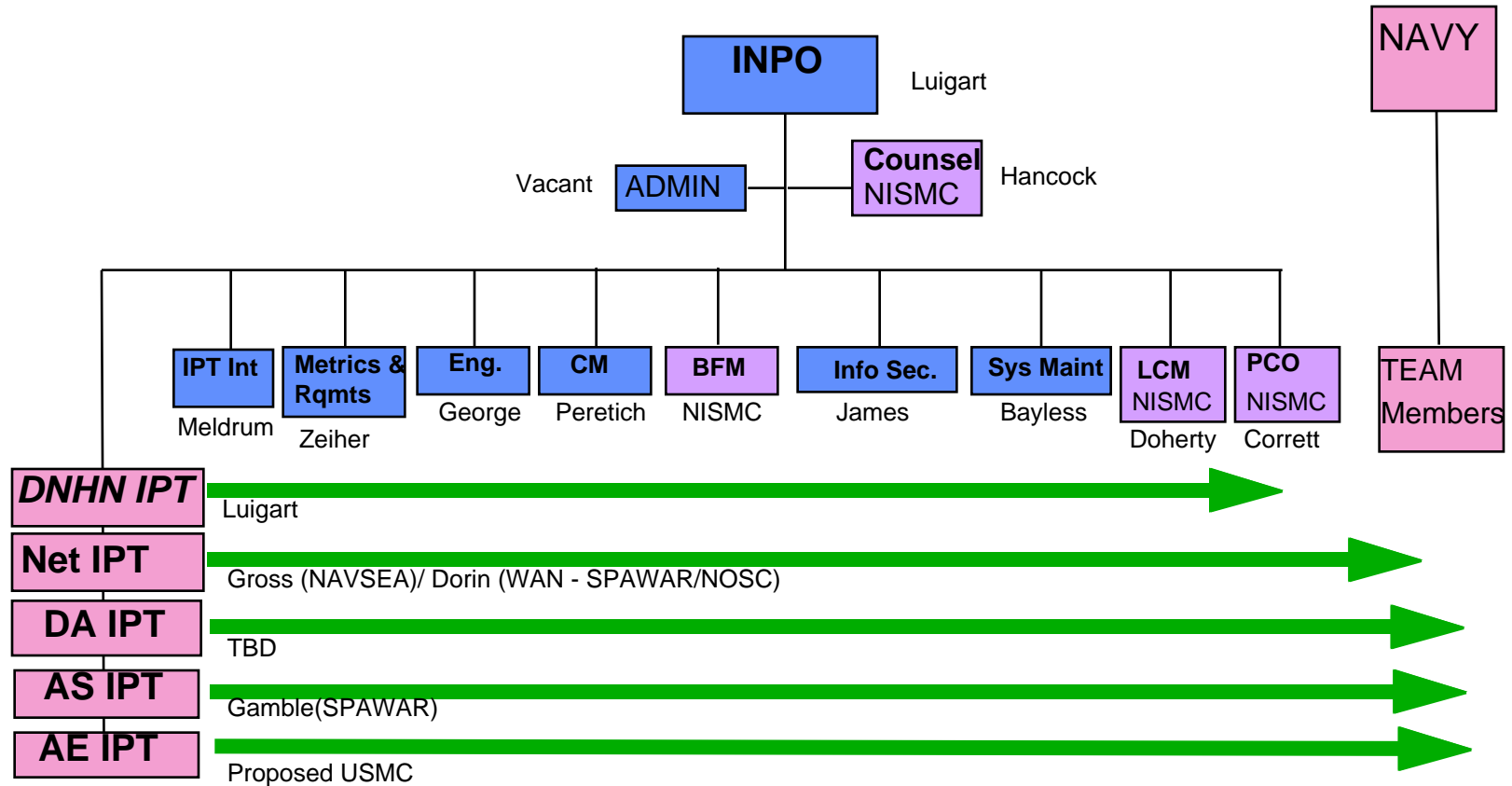
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- **Products**
- **Messaging**
 - DoNWAN (thru X.400 and X.500)
 - Internet (thru SMTP/MIME)
 - DoD (today through SMTP/MIME, ultimately thru DMS)
- **Cross Platform Document Exchange**
 - MS Office (full interoperability)
 - Others (limited by translation capability)
- **Remote Accessibility**
 - Full LAN Access through remote access

INPO Organization



Note: Teams will be led and filled from across the Navy community

Organizational Bottom Line

- **Consensus building IPTs (Not DC Driven)**
- **Geographically disbursed, “all-volunteer”, virtual teaming**
- **“Customer”-led**
- **INPO provide communication and integration nucleus**
 - **Team Lead support**
 - **Some Engineering support**
 - **Limited support from other competencies as required**
 - **InfoSec, Requirements, Ops & Maint.,**

IT Standards

- **Standards must emphasize DoN reliance upon open systems and TAFIM compliant architecture**
- **Standards key: maximize existing infrastructure in short term, migration to standards compliance in long term**
- **Development strategy**
 - **INPO facilitates development thru cross-section IPTs**
 - **FWSEB approves IT standards**
 - **Published in DoN Center for Architecture**
 - **ITEC develops contracts for DoN acquisition (with INPO support)**
 - **DoN customers procure IT items off approved contract list**
- **Early focus will be in Networks (thru DoN WAN) and Application Enablers (thru DMS)**

Development Approach

Develop standards like we were designing a system - start high level and work down, with CM along the way

- Establish System Baseline - Level 1
Architectural Model approval by FWSEB (INPO and core of IPT)**
- Level 2 System Baseline - Level 2
Architectural model approved by FWSEB (IPTs for each level)**
- Detailed Baseline - Individual Standards components developed and approved by FWSEB (sub teams chartered by IPTs)**

INPO Role

- **Facilitate the development of interoperable standards**
 - **Provide day to day contractor PM support**
 - **Provide lead engineer for each team**
 - **To facilitate interoperability**
 - **Provide limited resources from other Competencies & Administrative help as required**
 - **Provide team budget to facilitate team meetings**
 - **Provide home page for each team, includes capability to review and comment on standards**

DoN WAN Team Prototype

- Major Infrastructure deployers engaged
- Lead by “virtual” DPM from Navy field activity
- Goal to leverage Navy’s large legacy base
- Provides immediate roadway for DMS application
- Basis for new business practices deployment
- Highly successful example of the process desired on many IM/IT issues

Scope

- Support for a multi-operational systems environment
- Reliable X.400/DMS Electronic Mail
- Security
- Synchronized directory services - enabled messaging layer
- Direct access to mail enabled attachments
- Remote Capability - dial-in and visitor hosting to home.
- Support migration to Defense Messaging System
- File Sharing Repository for sharing large files/documents
- Network bandwidth to support engineering and logistics data, large files, graphics, and data intensive on line searches
- VTC upgrades and DT-VTC capability based on emergent H.320/T.120 standards
- Enterprise Apps - Calendaring Document Management and Work Flow, etc... ???

1996 IM&IT Conference

IM&IT leaders agreed to complete the following actions prior to the next conference:

- **Combine IM&IT Conference with JRWG & CRWG**
- **Create a Senior Executive Steering Board**
- **Copernicus Implementation Plan**
 - **More details of the Vision**
- **Develop DoN IM/IW Strategic Plan**